

Single and Three Phase NEMA Manual Starting Switches

Overview/Product Selection

1



Open Type without Enclosure

Bulletin 609

- Contact position indicator
 - Locking features
 - Wide range of enclosures:
 - Open-type without enclosure, Type 1, and Type 12
- Bulletin 609 manual starting switches are designed for use on motor starting installations where remote push button control is not required and where undervoltage protection is not needed. The motor is started at full line voltage, and thermal type overload protection is provided. Bulletin 609RS manual starting switches are designed for manually reversing AC polyphase motors; the Bulletin 609TS manual switches are designed for operating 2-speed, separate winding wye connected motors. These switches incorporate two of the standard Bulletin 609 manual starting switches mounted on a common base plate. A mechanical interlock is provided to prevent both switches from being closed at the same time.

Table of Contents

- Product Selection..... this page
- Accessories and Modifications..... 1-199
- Approximate Dimensions..... 1-203

Standards Compliance

- NEMA/EEMAC ICS2 (Industrial Controls and Systems)
- UL 508
- ABS 4/5.115
- CFR 111.70
- EN60947-4-1
- USCG 46

Certifications

- UL Listed (File No. E14841; Guide No. NLRV)
- CSA Certified (File LR 1234)
- American Bureau of Shipping (ABS)
- CE Marked
- Hazardous Location: UL Listed (File No. E10314) CSA Certified (File LR 11924)

Single- and Three-Phase NEMA Manual Starting Switches

Type of Operator	Phase	Size	Maximum Horsepower Rating							Open Type without Enclosure	Type 1 General Purpose Enclosure Surface Mounting*	Type 12 Dusttight Industrial Use Enclosure	Type 4/4X Watertight, Corrosion-Resistant Enclosure Fiberglass-Reinforced Polyester†	Hazardous Locations					
			Motor Voltage											Cat. No.	Cat. No.	Cat. No.	Cat. No.	Enclosure Class I, Groups C & D Class II, Groups E, F & G - Divisions 1 & 2	
			AC, 60 Hz			AC, 50 Hz	DC											Type 7 & 9	Type 3R, 7 & 9§
			115V	200V	230V	460... 575V	380... 415V	115... 125V	230... 250V										
Push Button	1 Ø	0	1	—	2	—	—	—	—	609-AOX	609-AAX	609-AJX	609-ACX	609-AEX	609-AHX				
		1	2	—	3	—	—	—	—	609-BOX	609-BAX	609-BJX	609-BCX	609-BEX	609-BHX				
		1 P	3	—	5	—	—	—	—	609-XOX	609-XAX	609-XJX	609-XCX	609-XEX	609-XHX				
	3 Ø	0	—	3	3	5	5	—	—	609-AOW	609-AAW	609-AJW	609-ACW	609-AEW	609-AHW				
1		—	7-1/2	7-1/2	10	10	—	—	609-BOW	609-BAW	609-BJW	609-BCW	609-BEW	609-BHW					
Toggle Lever	1 Ø	0	1	—	2	—	—	—	—	609T-AOX	609T-AAX	—	—	—	—				
		1	2	—	3	—	—	—	—	609T-BOX	609T-BAX	—	—	—	—				
		1 P	3	—	5	—	—	—	—	609T-XOX	609T-XAX	—	—	—	—				
	3 Ø	0	—	3	3	5	5	—	—	609T-AOW	609T-AAW	—	—	—	—				
1		—	7-1/2	7-1/2	10	10	—	—	609T-BOW	609T-BAW	—	—	—	—					
Push Button	DC*	0	—	—	—	—	—	1	1-1/2	609D-AOZ	609D-AAZ	—	609D-ACZ	609D-AEZ	609D-AHZ				
		1	—	—	—	—	—	1-1/2	2	609D-BOZ	609D-BAZ	—	609D-BCZ	609D-BEZ	609D-BHZ				
Toggle Lever	DC*	0	—	—	—	—	—	1	1-1/2	609DT-AOZ	609DT-AAZ	—	—	—	—				
		1	—	—	—	—	—	1-1/2	2	609DT-BOZ	609DT-BAZ	—	—	—	—				

Bulletin 609RS — Manual Reversing Switches

Push Button	3 Ø	0	—	3	3	5	5	—	—	609-AOW21	609-AAW21	—	—	—	—
		1	—	7-1/2	7-1/2	10	10	—	—	609-BOW21	609-BAW21	—	—	—	—
Toggle Lever	3 Ø	0	—	3	3	5	5	—	—	609T-AOW21	609T-AAW21	—	—	—	—
		1	—	7-1/2	7-1/2	10	10	—	—	609T-BOW21	609T-BAW21	—	—	—	—

Bulletin 609TS — Manual 2-Speed Switches

Push Button	3 Ø	0	—	3	3	5	5	—	—	609-AOW22	609-AAW22	—	—	—	—
		1	—	7-1/2	7-1/2	10	10	—	—	609-BOW22	609-BAW22	—	—	—	—
Toggle Lever	3 Ø	0	—	3	3	5	5	—	—	609T-AOW22	609T-AAW22	—	—	—	—
		1	—	7-1/2	7-1/2	10	10	—	—	609T-BOW22	609T-BAW22	—	—	—	—

* Type 1 general purpose flush mounting enclosures with pull box are also available. Order as follows. Change the second letter of the listed cat. no. from **A** to **L**. Example: **Cat. No. 609-ALX**. For a stainless steel flush plate, change the second letter of the listed cat. no. from **A** to **Q**. Example: **Cat. No. 609-AQX**.

* DC manual starters are not UL listed.

† Fiberglass-reinforced polyester hubs are included with each starter.

§ These enclosures include a cover gasket and drain. It is recommended that a breather also be installed.

- Breather **Cat. No. 1401-N1** (Can be installed at the top of an enclosure.)
- Drain **Cat. No. 1401-N2** (Can be installed at the bottom of an enclosure.)
- Breather-Drain Combination **Cat. No. 1401-N3** (Can be installed at the top of an enclosure as a breather or bottom as a drain.)



Single and Three Phase NEMA Manual Starting Switches

Accessories — Field Installed — Factory Installed

Pilot Light Kits

Kits are available for field installation of pilot lights in Type 1 General Purpose surface or flush mounting enclosures. As standard, a clear pilot light lens is supplied. Pilot lights are not available for Bulletin 609RS or 609TS manual starters.

Volts [V]	Cat. No.
120	609-N10
240	609-N20
480	609-N40
600	609-N60

Pilot Lights Factory Installed

To order, add the following suffix code after the last letter in the listed Cat. No. Example: **Cat. No. 609-AAXD4**. Available for Type 1 General Purpose Enclosure only.

Volts [V]	Suffix Code
120	D4
240	A4
480	B4
600	C4

Note: Replacement lamp is ANSI part number B2A (NE-51H), **Cat. No. 609-N9**.

Fusing

The Bulletin 609 is suitable for general installation in accordance with the local electrical code.

Group Fusing

The Bulletin 609 sizes 0 and 1 in Type 1, 4X, and 12 enclosures are UL Listed for group fusing with Class J fuses only. See table below for maximum fuse ratings.

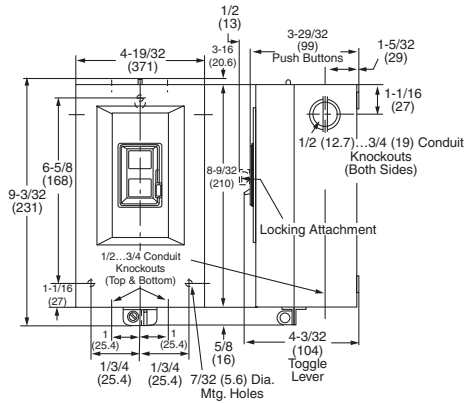
Full Load Current of Smallest Motor Amperes [A]	Maximum Fuse Ratings [A]	
	Nominal System Voltages	
	120...240V	480...600V
0.45...2.99	30	30
3.00...6.49	60	30
6.50...18.0	100	—



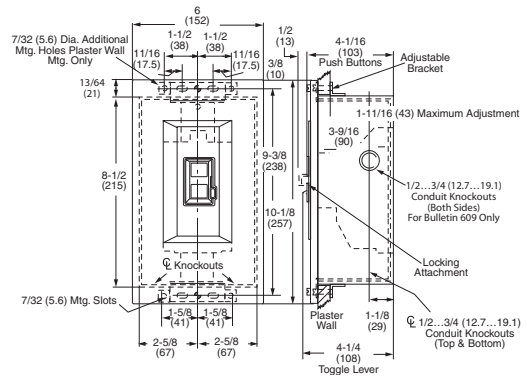
Dimensions are shown in inches (millimeters). Dimensions are not intended to be used for manufacturing purposes.

Bulletin 609 – 609U

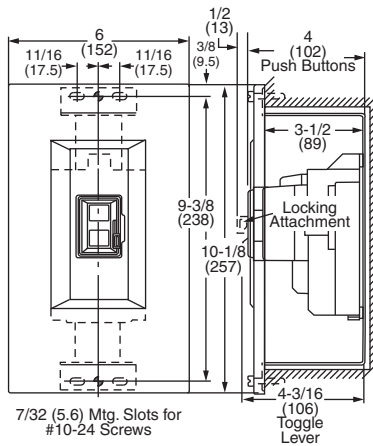
NEMA Type 1



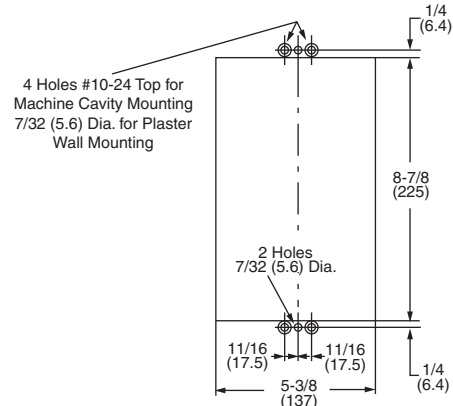
Surface Mounting



Flush Mounting for Plaster Wall

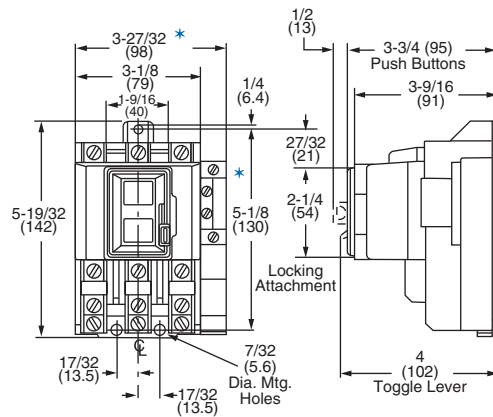
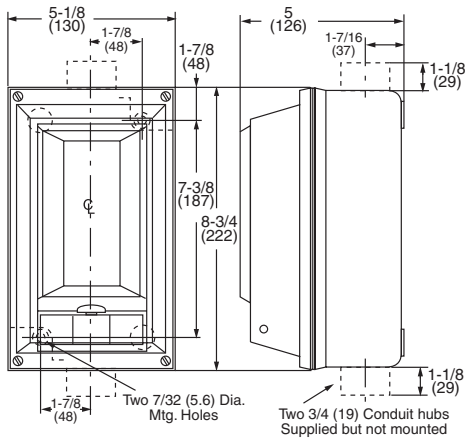


Flush Mounting for Machine Cavity



Flush Mounting Cavity and Drilling Layout

NEMA Type 4/4X



Open Type — Without Enclosure

* Undervoltage solenoid applies only to Bulletins 609U and 609TU.